A Framework for QoS-Aware Service Composition

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ABSTRACT

Preparing an open environment for dynamic composition and re-composition of services requires standardized technologies for building, deploying, and running software systems. One key challenge in this respect is how to compose services and orchestrate the service collaboration to best fit the specified behavior, both in terms of functionality and quality. In this paper we present an approach for QoS-aware service composition. A general framework, called service planning framework, is presented. The framework is used at both build-time and run-time to identify possible implementations of a service and choose one service composition based on its QoS properties. At build-time we exploit model-driven system development, and at run-time we consider a QoS-aware execution environment.